



Model Type	Connectors	Distance
8340-0	UTP	100m
	Coax	185m

For wide temperature (-40 to 60° C) modules, add a "W" to the end of the model number. Consult factory for other configurations and extended temperature (-40 to +75° C) modules.

**OVERVIEW:**

The *iConverter* 10T/2 converter supports the IEEE 802.3 standard and converts 10BASE-T cabling (UTP) to 10BASE-2 coax cabling. The *iConverter* supports Half-Duplex 10Mbps Ethernet and provides a crossover UTP switch for easy attachment to hubs, switches and workstations. It also features a termination switch for easy coax termination.

The 10T/2 can be used as a standard two-port UTP to fiber converter. It can also use its two additional 10/100 backplane Ethernet ports to connect to adjacent modules and accommodate flexible network configurations like In-Band management and multi-module configurations. The *iConverter* 19-Module, 5-Module or 2-Module Chassis have backplanes that facilitate connectivity between adjacent modules.

The 10T/2 can be used in an unmanaged or managed fashion. When unmanaged, it can be installed in a chassis without a Network Management Module (NMM). To be managed, a NMM module must be installed in the same chassis.

**Due to the Ethernet 5-4-3 rule, no more than 4 *iConverter* 10T/2 modules can be linked together via the backplane buses.**

**PORT STRUCTURE:**

Fig. 1 depicts a chassis with three modules plugged into three of its adjacent backplane slots. The adjacent slots are connected to the "A" and "B" backplane links via the module's "A" and "B" backplane Ethernet ports. In this example, the 10T/2 in the center slot connects

to the slot on its left using the "A" link and to the slot on its right using the "B" link.

In this example, the module on the left is an NMM and it connects via its "A" link to the 10T/2 facilitating In-Band management. The module on the right is an *iConverter* 10/100 module and it connects via its "B" link to the 10T/2 facilitating a 2-port 10/100 Ethernet hub/switch with a 10BASE-2 port and a fiber uplink. This 3-module configuration provides an effective 10BASE-2 to 10/100 managed switch with a fiber uplink.

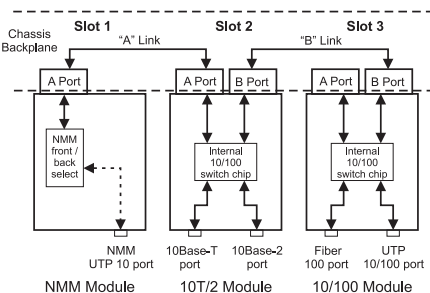


Fig. 1 10T/2 Application Example

This example shows how the 10T/2 can be used either as a traditional managed or unmanaged media converter or to create flexible and effective network hub/switch configurations.

**To find out about individual chassis A and B backplane links, refer to the specific chassis' user manual.**

**Front Plane RJ45 Crossover "= / X" Switch:**

When connecting to a workstation, set this DIP-Switch to Straight-Through "=" (factory setting). When connecting to a hub or switch, set to Crossover "X".

**BOARD MOUNTED DIP-SWITCH SETTINGS:**

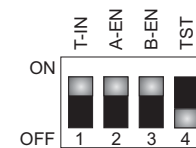


Fig. 2 Board Mounted DIP-Switches

**Coax Termination "T-IN" DIP-Switch:**

When the Coax Termination "T-IN" DIP-Switch is in the "ON" position, the coax port is terminated. Use this DIP-Switch setting when this coax port is at the end of the network.

**Backplane A Enable "A-EN" DIP-Switch:**

When the Backplane A Enable "A-EN" DIP-Switch is in the "ON" position, the *iConverter* 10T/2 module's "A" backplane Ethernet port is enabled. This port allows connectivity to adjacent modules and facilitates In-Band management of the Network Management Module (NMM). When the Backplane A Enable "A-EN"

**MOUNTING AND CABLE ATTACHMENT:**

*iConverter* modules are hot-swappable and can be installed into any chassis in the *iConverter* family.

- Carefully slide the *iConverter* module into the installation slot, aligning the module with installation guides, and secure using the front panel fastener screw. NOTE: Ensure that module is firmly seated against the backplane.
- Secure module by securing panel fastener screw (attached to module) to chassis front.
- Attach the *iConverter* 10T/2 RJ45 connector via a category 5 cable to a 10Base-T Ethernet device.
- Attach the *iConverter* 10T/2, via a coax cable to a 10BASE-2 Ethernet device.
- If using the *iConverter* 10T/2 at the end of a coaxial network, set Coax Termination "T-IN" DIP-Switch to the "ON" position.

**LED INDICATORS:**

LED	Color	Description
Pwr:	Yellow	On - Power on
Col:	Yellow	On - Coax collision
Act:	Green	On - Coax activity
Lk/Act:	Green	On - UTP link Blink - UTP activity

**10T/2 SPECIFICATIONS:**

Model Type	10T/2
Protocols	10BASE-T and 10BASE-2
Connectors	RJ-45 and BNC
Controls	Coax Termination, Backplane Enables
LED Displays	Power, Coax Collision, Coax Activity, UTP Link/Activity
Dimensions	W:0.85" x D:4.5" x H:2.8"
Weight	8 oz.
Compliance	UL, CE, FCC Class A
Power Requirement	1.0A @ 3.3VDC (typical)
Temperature	Standard: 0 to 50° C Wide: -40 to 60° C Storage: -40 to 80° C
Humidity	5 to 95% (non-condensing)
Altitude	-100m to 4000m
MTBF (hrs)	722,000

**Warning**

The operating description in this Instruction Manual is for use by qualified personnel only. To avoid electrical shock, do not perform any servicing of this unit other than that contained in the operating instructions, unless you are qualified and certified to do so by Omnitron Systems Technology, Inc.

**Warranty**

This product is warranted to the original purchaser against defects in material and workmanship for a period of 2 YEARS from the date of shipment. A LIFETIME limited warranty may be obtained by the original purchaser by REGISTERING this product with Omnitron within 90 days from the date of shipment. To register, complete and mail or fax the enclosed Registration Card to the indicated address. You may also register your product on the internet at [www.omnitron-systems.com/Register](http://www.omnitron-systems.com/Register). During the warranty period, Omnitron will, at its option, repair or replace a product which is proven to be defective.

For warranty service, the product must be sent to an Omnitron designated facility, at Buyer's expense. Omnitron will pay the shipping charge to return the product to Buyer's designated US address (within the 48 contiguous states and the District of Columbia) using Omnitron's standard shipping method.

**Limitation of Warranty**

The foregoing warranty shall not apply to defects resulting from improper or inadequate use and/or

maintenance of the equipment by Buyer, Buyer-supplied equipment, Buyer-supplied interfacing, unauthorized modifications or tampering with equipment (including repairs of equipment by personnel not specifically authorized and certified by Omnitron), or misuse, or operating outside the environmental specification of the product (including but not limited to voltage, ambient temperature, radiation, unusual dust, etc.), or improper site preparation or maintenance. No other warranty is expressed or implied. Omnitron specifically disclaims the implied warranties of merchantability and fitness for any particular purpose.

**Exclusive Remedies**

The remedies provided herein are the Buyer's sole and exclusive remedies. Omnitron shall not be liable for any direct, indirect, special, incidental, or consequential damages, whether based on contract, tort, or any legal theory.

DIP-Switch is in the "OFF" position, the *iConverter* 10T/2 module's A backplane Ethernet port will be isolated from the backplane.

**Backplane B Enable "B-EN" DIP-Switch:**

When the Backplane B Enable "B-EN" DIP-Switch is in the "ON" position, the *iConverter* 10T/2 module's B backplane Ethernet port is enabled. This port allows connectivity to adjacent modules and facilitates In-Band management of the Network Management Module (NMM). When the Backplane B Enable "B-EN" DIP-Switch is in the "OFF" position, the *iConverter* 10T/2 module's B backplane Ethernet port will be isolated from the backplane.

**"TST" DIP-Switch:**

This switch is reserved for factory use, and should be left in the "OFF" position.

**Technical Support:**

For help with this product, contact our Technical Support:  
Phone: (949) 250-6510  
Fax: (949) 250-6514  
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140 Technology Dr., #500  
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Email: [support@omnitron-systems.com](mailto:support@omnitron-systems.com)  
URL: [www.omnitron-systems.com](http://www.omnitron-systems.com)